

**Paint Inspection
Gauge P.I.G. 455**

*A small instrument
with great capabilities*

*LED for optimum
specimen illumination*

*Low current
consumption*



testing equipment for quality management

ERICHSEN

**DIN 50986
DIN EN ISO 2808
ASTM D 4138
AS 1580 Meth. 408.1**

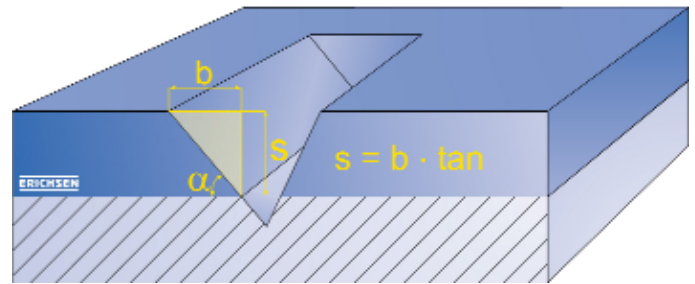
**For layer thickness
measurements on
base materials such
as wood, concrete or
plastics**

Purpose and Application

The **P.I.G. 455** is a paint inspection gauge which is suitable for use wherever conventional electro-magnetic measuring techniques are ineffective, namely for coatings on wood, concrete, plastics and other non-metallic substrates.

Testing Principle

Testing with the **P.I.G. 455** is based on the standardized wedge cut procedure: The coating is cut through at a defined angle in such a way that the cut penetrates the substrate. The layer thickness (s) is calculated on the basis of the slope projection (b) of the cut face, determined using a measuring microscope, and the cutting angle (α). Similarly, the individual layer thickness of multilayer systems can be ascertained.



For adhesion tests in accordance with AS 1580 Meth. 408.1, the width of the area where the coating has flaked off during the cutting operation is related to projection b.

| Carbide tip | Nr. 1 | Nr. 4 | Nr. 5 | Nr. 6 |
|---|-----------|-----------|---------|---------|
| Measuring range (μm) | 20 - 2000 | 10 - 1000 | 5 - 500 | 2 - 200 |
| Cutting angle α | 45° | 26.6° | 14° | 5.7° |
| Factor ($\mu\text{m}/\text{sc.div.}$) | 20 | 10 | 5 | 2 |

Design and Function

The **P.I.G. 455** consists of a black painted aluminium block which accommodates the following functional elements:

- Exchangeable carbide tip with precision-ground angular cutting blade.
- Measuring microscope with a magnification of 50 and a reticle (2 mm with 1/100 division), which is also suitable for inspection tasks.
- Two pairs of support pins to hold the measuring microscope securely and guide the carbide tip.
- Battery compartment for 9 V battery block
- Combination of LED and fibre-optic light guide for optimum specimen illumination at low current consumption
- Key for the integrated illumination

Technical Data

| | |
|-----------------------------|-----------------------|
| Measuring range (standard): | 2 - 200 μm |
| Dimensions: | 110 x 85 x 25 mm |
| Net weight: | 0.4 kg |
| Power supply: | 9 V battery |
| Light source: | LED diffuse white |
| Measuring microscope: | |
| - Magnification: | 50 |
| - Reticle | 2 mm (1/100 division) |

Ordering Information

| Order No. | Description |
|------------|--|
| 0098.01.31 | Paint Inspection Gauge P.I.G. 455 |
| | Scope of delivery includes: - Carbide tip No. 6 - 9 V battery - Marking pen - Leather case - Operating instructions |

Accessories / Spares

| Order No. | Description |
|-----------|---|
| 910924741 | Special Tip No. 1 for layer thicknesses up to 2000 μm |
| 910927441 | Special Tip No. 4 for layer thicknesses up to 1000 μm |
| 910927641 | Special Tip No. 5 for layer thicknesses up to 500 μm |
| 910927541 | Special Tip No. 6 for layer thicknesses up to 200 μm |

Subject to technical modifications.
Gr. 10 - TBE 455 - III/2004